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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,837	04/10/2001	Kinya Aota	503.35933VV5	1020
20457	7590	10/03/2003	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			SIMONE, CATHERINE A	
		ART UNIT	PAPER NUMBER	
		1772	18	
DATE MAILED: 10/03/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/828,837	AOTA ET AL.
Examiner	Art Unit	
Catherine Simone	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 17 July 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 17, 18 and 20-34 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 17, 18 and 20-34 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____ .

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 21 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "said extruded part" in lines 3 and 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. **Claims 17, 18, 20, 22-24 and 26-34** are rejected under 35 U.S.C. 102(a) as being anticipated by Aota et al. (EP 0 797 043).

Regarding **claims 24 and 30**, Aota et al. discloses an extruded frame member for use in a friction stir welding, the extruded frame member including at least one plate (Fig. 7, #33 or #34), wherein; the extruded frame member is adapted to be arranged adjacent another extruded frame member so as to be abutted to the another extruded frame member such that the friction stir

welding of the extruded frame member and the another extruded frame member can be carried out; at least one end portion of a width of the at least one plate of the extruded frame member is provided respectively with a thickened part (Fig. 7, #37a) which protrudes from a side of the at least one plate of the extruded frame member, in a thickness direction of the at least one plate of the extruded frame member; the extruded frame member further includes an extended part (Fig. 7, #37) extending from the thickened part, substantially in parallel to the at least one plate (Fig. 7, #33 or #34) of the extruded frame member, and extending beyond the at least one end portion of the width of the at least one plate of the extruded frame member, in a direction of the width of the at least one plate of the extruded frame member; the extended part of the extruded frame member is provided continuously and outwardly from the thickened part of the at least one end portion of a width of the at least one plate of the extruded frame member; and the extended part of the extruded frame member further is arranged to overlap at least one plate of the another extruded frame member when the extruded frame member is arranged adjacent the another extruded frame member such that the friction stir welding can be carried out. Regarding **claim 17**, note at least one plate (Fig. 7, #33) of the extruded frame member, the thickened part (Fig. 7, #37a) and the extended part (Fig. 7, #37) are formed integrally as one body. Regarding **claims 18 and 33**, note an outer surface of the thickened part (Fig. 7, #37a) and an outer surface of the extended part (Fig. 7, #37) are coplanar. Regarding **claim 20**, the material of the thickened part (Fig. 7, #37a) and of the extended part (Fig. 7, #37) is inherently adapted to fill up any gaps, between the at least one plate of the extruded frame member and the at least one plate of the another extruded frame member, which exist when the extruded frame member abuts another extruded frame member. Regarding **claim 22**, the thickened part (Fig. 7, #37a) has a width that is

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substantially equal to a width of the extended part (Fig. 7, #37). Regarding **claim 23**, note a side surface, of the extended part (Fig. 7, #37), furthest from the thickened part, and a side surface of the thickened part (Fig. 7, #37a), furthest from the extended part, extend obliquely. Regarding **claim 26**, the extended part (Fig. 7, #37) of the extruded frame member is positioned at a side of the at least one end portion of the at least one plate (Fig. 7, #33) of the extruded frame member. Regarding **claims 27 and 31**, note the at least one plate (Fig. 7, #33) has a surface which forms a surface of the extruded frame member, and the extended part (Fig. 7, #37) has a surface extending from the thickened part (Fig. 7, #37a), the surface of the extended part extending substantially in parallel to the surface of the at least one plate (Fig. 7, #33) which forms a surface of the extruded frame member. Regarding **claims 28 and 32**, the surface of the at least one plate (Fig. 7, #33) which forms a surface of the extruded frame member is a surface exposed after the friction stir welding. Regarding **claims 29 and 34**, the extended part (Fig. 7, #37) extends upward in the thickness direction of the at least one plate to a level above a level of the at least one plate of the extruded frame member.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 21 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Aota et al. (EP 0 797 043).

Aota et al. discloses the claimed invention and a groove (Fig. 8, #45) formed between an outer surface of the thickened part of the extruded frame member and an outer surface of the extended part of the extruded frame member. However, Aota et al. fails to disclose the groove being of triangular shape.

Normally, it is to be expected that a change in shape of the groove would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dailey et al.*, 149 USPQ 47 CCPA 1966.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the groove noted in Aota et al. to a triangular shape. One skilled in the art would have been motivated to do so in order to form an extruded frame member, since it has been held that the change in shape or form of the groove would be an unpatentable modification absence of showing unexpected results.

Regarding **claim 21**, note the thickened part (Fig. 7, #37a) has a width that is substantially equal to a width of the extended part (Fig. 7, #37).

Response to Arguments

7. Applicant's arguments filed July 17, 2003 have been fully considered but they are not persuasive. Applicant argues that "Clearly, as can be seen, for example, in Fig. 7 of No. 797,043, the projecting piece 38 having raised portion 38a overlaps the projecting piece 37 of the frame member 31, and it is respectfully submitted that this disclosure in No. 797,043 would have taught

away from the overlap as in the present claims.” However, it is to be pointed out that the No. 797,043 reference clearly teaches an extended part (Fig. 7, #37) overlapping at least one plate of another extruded frame member. According to the Merriam-Webster’s Dictionary, the definition of overlap is “to extend over or past and cover a part of”. Element 37 in Figure 7 of the No. 797, 043 reference does extend past and covers part of the plate of the another extruded frame member.

Applicant further argues that “ As can be seen, for example, in Fig. 7 of No. 797,043, the structure represented by reference character 37 extends from vertical plate 36, not raised portion 37a; and accordingly, it is respectfully submitted that the structure as in, for example, Fig. 7 of No. 797,043 would have taught away from that aspect of the present invention having the extended part extending from the thickened part as in the present invention. That is, it is respectfully submitted that the extruded part extends from the vertical plate in No. 797,043, not from the thickened part.” However, it is to be pointed out in the No. 797,043 reference that the thickened part is not just the raised portion 37a. It also includes the portion beneath 37a. Therefore, the extended part 37 extends from the thickened part as is presently claimed.

Applicant further argues that “As can be seen in Fig. 7, the structure shown therein for frame for frame member 31 is not “adapted to” perform the recited function in present claims 30 and 20, noting positioning of projecting pieces and raised portions. Thus, it is respectfully submitted that treating the “adapted to” language as required, the structure in No. 797, 043 is not “adapted to” perform the recited function, and such structure in Fig. 7 would have neither disclosed nor would have suggested the presently claimed extruded frame member as in, for example, claims 30 and 20.” However, as stated on page 3 of the previous Office Action mailed

April 17, 2003, the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Even if the “adapted to” language was treated, the structure in No. 797,043 is “adapted to” perform the recited function, i.e. the extruded frame member (Fig. 7, #31) is adapted to be arranged adjacent another extruded frame member (Fig. 7, #32) so as to be abutted to the another extruded frame member.

In response to applicant's argument that “Fig. 8 of No.797, 043 discloses structure after friction stir welding; and does not disclose, nor would have suggested, an extruded frame member for use in friction stir welding, having the thickened and extended parts and groove, as in the present claims”, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore, it is to be noted in Figure 8 of No. 797,043, the groove (45) is formed between an outer surface of the thickened part and an outer surface of the extended part as recited in claim 25.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703)605-4297. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Catherine Simone
Examiner
Art Unit 1772
September 26, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 9/30/03